



April 23, 2021

VIA ELECTRONIC FILING

The Honorable Jocelyn G. Boyd
Chief Clerk/Administrator
Public Service Commission of South Carolina
101 Executive Center Drive
Columbia, South Carolina 29210

RE: Dominion Energy South Carolina, Incorporated's Request for "Like Facility" Determinations Pursuant to S.C. Code Ann Section 58-33-110(1) (This Filing Does Not Involve any Change to the Retail Electric or Natural Gas Base Rates)
Docket No. 2021-83-E

Dear Ms. Boyd:

By Order No. 2021-276, dated April 21, 2021, the Public Service Commission of South Carolina ("Commission") requested that Dominion Energy South Carolina, Inc. ("DESC" or "Company") provide further clarification regarding its request for "like facility" determinations pursuant to S.C. Code Ann. §58-33-110(1). DESC hereby provides the following clarifications¹:

1. **Commission Request No. 1:** What is meant when the Company states that it will "fold" the line into the substation?

DESC Response: A "fold-in" is where a transmission line—in this case, the existing Jasper – Yemassee 230 kV #1 Line—is split into two separate segments and each of those segments is then terminated at or "folded into" a nearby substation. In this case, the Jasper – Yemassee 230 kV Line #1 is being broken into two segments and those segments are being terminated in or "folded-into" the Lakeside 230/115 kV Substation. Once the fold-in is complete, instead of a single the Jasper – Yemassee 230 kV Line #1, there will be two line segments—the Jasper – Lakeside 230 kV Line and the Lakeside – Yemassee 230 kV Line.

2. **Commission Request No. 2:** How did DESC determine that the facilities proposed constitute a "like facility"?

¹ During its review of the Company's request, the South Carolina Office of Regulatory Staff ("ORS") made requests that were substantially the same as Commission Request Nos. 2, 3, 4, and 5. The responses herein are the same as those provided to ORS with minor modifications to respond to the Commission's specific requests.

DESC Response: As an initial matter, the law requires only that the replacement facility be “like” the existing facility; it does not require that the replacement facility be identical to the existing facility. In this case, DESC is folding in the existing Jasper – Yemassee 230kV #1 into the Lakeside Substation, which will be constructed on approximately 3.5 acres of a larger approximately 20.5-acre Company-owned tract and which will be situated adjacent to and between the existing Okatie Switching Station and Okatie Substation. Upon completion of the work, the existing Jasper – Yemassee 230kV #1 will be split into two segments—the Jasper – Lakeside 230 kV and Lakeside – Yemassee 230 kV Line. There will still be a 230 kV path from Jasper to Yemassee, but the path will be two segments instead of a single segment.

Commission Order No. 2018-33 supports the Company’s like facility request in this matter. In Commission Order No. 2018-33, the Commission issued a “like facility” determination where a single 230 kV path was split into two segments. There the Company folded the Wateree – Columbia Industrial Park 230 kV Line into its Hopkins Substation, creating two 230 kV segments, and added an additional autobank to the Hopkins Substation.

Commission Order No. 2014-633 also supports the Company’s request. There the Commission issued a “like facility” determination where a portion of the replacement lines was run along relocated (new) right-of-way and lines were re-terminated at a new substation approximately 400 feet from the boundary of the existing right-of-way corridor.

3. **Commission Request No. 3:** Please provide information about all other alternatives considered or reviewed by DESC.

DESC Response: In addition to Alternatives A and B discussed in the Company’s request dated March 24, 2021, the Company also briefly considered a new tie line with Southern Company or Santee Cooper given the location of the identified issues on the system. Based on experience, the Company realized a new tie to either of those companies in this area would likely exacerbate the power flow issues rather than mitigate them.

Furthermore, the primary concern for the Company was to address the low voltage problem because the voltage could fall outside the Company’s planning criteria for Winter 2022/2023 upon the occurrence of a certain contingency. Given the short time frame to plan, design, and construct the project to solve this voltage issue, the Company felt viable solutions would need to use predominantly existing right-of-way. As such, Alternatives A and B were the only viable solutions.

4. **Commission Request No. 4:** Please provide the data giving rise to the Company's voltage concerns referenced in the Company's request.

DESC Response: Voltage support currently comes from the 230 kV sources at Southern Company's (SOCO) McIntosh Substation, which is approximately 29.64 transmission line miles away from the farthest distribution substation (Bluffton); the 230 kV sources at Yemassee Substation, which is approximately 50.06 transmission line miles away from the farthest distribution substation (Bluffton); two transmission capacitor banks, one at Okatie (24 MVars) and one at Hardeeville (24 MVars); three solar generators (when available); and a few miscellaneous distribution capacitor banks (typically less than 4 MVars apiece).

The data below is a summary of the Company's powerflow modeling based on the worst N-1-1 contingency, loss of the Hardeeville transmission capacitor and the Okatie – McIntosh 115 kV SOCO Tie Line.

- 2021 summer (all solar generators online) - 98.22% voltage. 98.65% with operating guide in place.
- 2021/2022 winter (no solar generators online) - 95.91% voltage. 96.51% with operating guide in place.
- 2022/2023 winter (no solar generators online) - 94.37% voltage. 95.00% with operating guide in place.

The lower limit for voltage in DESC's planning criteria is 95% of nominal. The modeling demonstrates that the post-contingency voltage at the Bluffton Substation would fall below this limit in the winter of 2022/23 if Alternative A is not in place or a temporary operating guide is not utilized.

5. **Commission Request No. 5:** Please provide additional details on DESC's temporary solution to address voltage concerns in the interim prior to construction completion.

DESC Response: The Company has not selected its temporary solution. However, there are two viable options: 1) energize an additional distribution capacitor bank at the Bluffton Substation or 2) close the new Bluffton (DESC) – Bluffton (Santee Cooper) 115 kV tie line (scheduled for completion by the end of 2021).

Without Alternative A in place by the winter of 2022/23, the post-contingency voltage at the Bluffton Substation would fall below 95% of nominal, which is the lower limit for DESC's planning criteria. Through further studies, DESC confirmed that it can raise the voltage in the 2022/23 winter season to right at

the 95% threshold by operating an additional capacitor bank on the distribution system, which can be placed in service with a one-hour notice. With load growth expected to continue, the voltage would fall below the 95% threshold the following winter even with operation of the additional capacitor bank.

The other option is to work with Santee Cooper to close the normally-open tie line that will be put in service at the end of 2021. Santee Cooper's Bluffton Substation has a 230 kV source and would most likely be able to provide sufficient voltage support to the DESC Bluffton Substation during the winter of 2022/23.

However, this new tie-line was planned as an emergency backup to serve DESC's Bluffton and Pritchardville Substations' loads in case the DESC line was forced out and to allow the Company to quickly restore load to those substations. It can also be used for planned maintenance work. This line is not intended to stay tied through and is only for emergency or planned outage work. It is not a long-term solution to provide a strong level of system support to DESC in the Bluffton area.

In summary, either option could help DESC maintain the voltage level at the 95% threshold for an additional year based on the studies conducted. Neither is a long-term voltage solution, and neither will address the power flow issue in 2026.

By copy of this letter, we are also providing a copy of this supplemental information to counsel for the South Carolina Office of Regulatory Staff.

If you have any questions, please do not hesitate to contact us at your convenience.

Very truly yours,



Matthew W. Gissendanner

MWG/kms

cc: Jeffrey M. Nelson, Esquire
(via electronic mail and U.S. First Class Mail)